BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2020-3-E

In the Matter of:	)	**DIRECT TESTIMONY OF**
Annual Review of Base Rates	)	**JASON D. MARTIN FOR**
for Fuel Costs for	)	**DUKE ENERGY CAROLINAS, LLC**
Duke Energy Carolinas, LLC, Decreasing	)	
Residential and Non-Residential Rates	)	

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jason D. Martin and my business address is 40 West Broad Street, Suite 690, Greenville, SC 29601.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am Director of Strategy, Policy, and Strategic Investment for South Carolina at Duke Energy Corporation. I am responsible for the development and execution of strategy and policy support related to distributed energy technology for Duke Energy's South Carolina retail franchises, including Duke Energy Carolinas, LLC ("DEC" or the "Company") and Duke Energy Progress, LLC ("DEP," together with DEC, the "Companies"). This includes evaluation of legislation and regulation, and implementation of customer programs such as those associated with Act 236 (the "Act"), the South Carolina Distributed Energy Resource Act of 2014.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I received a Bachelor of Science degree in Electrical and Computer Engineering at North Carolina State University. I have been employed at Duke Energy since 1987 working in the areas of Engineering, Customer Services, Large Account Management, and Distributed Energy Technologies.

Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION BEFORE?

A. Yes. I testified before this Commission in DEP's 2019 and 2020 fuel and environmental cost recovery proceedings in Dockets No. 2019-1-E and 2020-1-E, and DEC's 2018 and

2019 fuel and environmental cost recovery proceedings in Dockets No. 2018-3-E and 2019-3-E.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide support for the Distributed Energy Resource Program ("DERP") costs that are incorporated into the proposed fuel factors prepared by Witness McGee. I will describe the nature of costs filed as well as any changes made to the DERP portfolio since the 2019 fuel proceeding.

Q. PLEASE DESCRIBE THE LEVELS OF SOLAR ADOPTION DEC HAS EXPERIENCED THROUGH COMPLIANCE WITH ACT 236.

A. Since January 1, 2015, DEC has seen significant growth in solar adoption as a result of implementing the incentives and programs for compliance with Act 236. The results of the implementation are shown below in Table 1. The Company has encouraged solar adoption through the Net Energy Metering incentive, Solar Rebate Program, and other DERP efforts discussed later in my testimony. As shown below in Table 1, there are 9 MW of utility scale solar facilities installed and approximately 31 MW with capacity under contract.

Table 1: DEC Solar Adoption by Implementing Act 236, as of May 31, 2020[1]

		ACT 236 Goal	Capacity Installed	Additional Capacity Under Contract[3]	% of Goal
Tier I	Utility Scale Solar (1MW – 10MW)	40	9	31	100%
Tier II	Customer Scale Solar (<1MW)[2]	40	80.7	-	202%
	Small Scale Solar (<20kW)	10	56	-	560%

Notes
1. All values in MW-AC
2. Customer Scale Solar is inclusive of Small Scale Solar
3. Capacity under contract is defined as those having an executed PPA and does not apply to Customer Scale or Small Scale Solar.

Q. PLEASE DESCRIBE THE DERP COSTS THAT ARE INCLUDED IN THE REVIEW, ESTIMATED, AND BILLING PERIODS.

A. Pursuant to Commission Order No. 2015-515, the Company offers its customers a variety of programs to support solar development. As a result, the Company incurred DERP incremental and avoided costs totaling $6,697,665 in the period from June 1, 2019 through May 31, 2020 (the "review period"); anticipates incurring $9,780,091 during the period June 1, 2020 through September 30, 2020 (the "estimated period"); and projects to incur $15,183,245 in the period October 1, 2020 through September 30, 2021 (the "billing period").

These costs represent the avoided and incremental costs associated with the Company's approved DERP offerings, including 1) Purchased Power Agreements executed to fulfill the Company's utility-scale solar goals under Act 236; 2) Distributed Energy Resource ("DER") Net Energy Metering ("NEM") Incentive; 3) Solar Rebate Program; 4) Carrying Costs on Deferred Solar Rebate Amounts; 5) Shared Solar Program; 6) NEM Avoided Capacity Costs; 7) NEM Meter Costs; and 8) General and Administrative Expenses, including incremental labor costs as a direct result of DERP, IT and billing enhancements, and other administrative costs associated with delivering these new programs to customers. Table 2 is an itemization of actual and expected DERP costs.

Table 2: DEC DERP Cost Summary - Review, Estimated, and Billing Periods[1]

Cost Type	Review Period 6/1/2019 - 5/31/20	Forecast Period 6/1/20 - 9/30/20	Billing Period 10/1/20 - 9/30/21
DERP Incremental Costs			
Purchased Power Agreements	$ 33,617	$ 116,912	$ 1,047,429
DERP NEM Incentive	4,293,247	5,949,574	8,765,412
Solar Rebate Program - Amortization	159,179	254,907	430,781
Solar Rebate Program - Carrying Costs	145,402	230,614	388,714
Shared Solar Program	226,390	293,321	142,650
NEM Avoided Capacity Costs	437,692	625,684	-
NEM Meter Costs	723,429	987,464	848,286
General and Administrative Expenses	279,685	476,821	494,522
Interest on capped Industrial undercollection	-	-	5,475
Total DERP Incremental Costs[2]	$ 6,298,640	$ 8,935,297	$ 12,123,269
DERP Avoided Costs - Energy and Capacity			
Purchased Power Agreements	$ 155,019	$ 512,094	$ 2,818,968
Shared Solar Program	244,006	332,700	241,008
Total DERP Avoided Costs	$ 399,024	$ 844,794	$ 3,059,976
Total DERP Incremental and Avoided Costs	**$ 6,697,665**	**$ 9,780,091**	**$ 15,183,245**

Source: McGee Exhibit 8,10 and 13

Notes.
1. Totals may not add due to rounding.
2. Costs shown exclude amounts allocated to Greenwood.

Q. PLEASE DESCRIBE THE COMPANY'S DER NEM INCENTIVE AND COSTS.

A. The DER NEM Incentive is a credit available to eligible net energy metering customer-generators that enables the customer-generator to receive full retail rate compensation for each kilowatt-hour (kWh) generated by their solar facility.

The DER NEM Incentive approximates the difference between (a) the value of a NEM Distributed Energy Resource, as computed using the methodology approved in Docket No. 2014-246-E, and (b) the utility's retail rate for that customer. Settling Parties in Docket No. 2014-246-E agreed that the DER NEM Incentive shall be treated as an incremental cost, as defined in S.C. Code Ann. § 58-39-140, effectively socializing the cost of the DER NEM Incentive to all retail customers as a component of the utilities' respective DER programs. Act 62, enacted by the General Assembly in 2019, removed the statutory capacity cap on NEM as set forth in Act 236 and made net energy metering available to all customer-generators who apply before June 1, 2021, according to all the terms and conditions provided to all parties in Commission Order No. 2015-194.

As shown on the "DER NEM Incentive" line in Table 2 above, the total costs associated with this incentive are expected to grow in the Billing Period. This growth is related to an expected increase in customers who have elected service under Rider RNM due to the continued availability of the NEM incentive, as described above.

Q. PLEASE DESCRIBE THE GROWTH OF CUSTOMER PARTICIPATION IN NET ENERGY METERING SINCE THE ENACTMENT OF ACT 236.

A. Participation in net energy metering has increased significantly since 2015 as a result of the decrease in the acquisition costs of solar, in addition to the availability of the Company's Solar Rebate Program and the NEM Incentive. On May 16, 2019, Act 62 was signed into law, which extended the provisions of NEM that were established by Order No. 2015-194. Act 62 requires the Company to make NEM available to all customer-generators who apply after May 16, 2019 and before June 1, 2021. Table 3 details total NEM participation as of May 31, 2020.

Table 3: DEC Net Energy Metering – Total Participation

Rider RNM	As of 5/31/2020	
	Number of Applications	**Capacity in MW (AC)**
Applications Approved	7,285	86.89
Applications Withdrawn	31	1.05
In Process and Installed	**7,254**	**85.84**
Installed	6,866	80.7
In Process	388	5.14

Q. PLEASE DESCRIBE THE GROWTH OF THE DER NEM INCENTIVE.

A. The growth of the DER NEM Incentive is attributed to an increase in interconnected, operational facilities participating in net metering during the review, estimated, and billing periods. Table 4, below, depicts the number of customers (and the associated kilowatts (kW-AC)) who have or are expected to energize their solar facilities and participate in net metering.

Table 4: DEC Net Energy Metering Capacity Connected - Review, Estimated, and Billing[1]

Rider RNM and Rider NM-SC	Review Period	Estimated Period	Billing Period
	6/1/19-5/31/20	6/1/20-9/30/20	10/1/20-9/30/21
Capacity (kW-AC)	96,800	99,700	111,400
# of Customers	7,333	7,606	8,803

Note:
1. These values represent cumulative capacity and number of customers on the last day of each period.

Q. COMMISSION ORDER 2015-194 REQUIRES THAT THE VALUE OF NEM DISTRIBUTED ENERGY RESOURCES IS COMPUTED ANNUALLY. WHAT IS THE 2020 VALUE AND HOW DID YOU ARRIVE AT THAT NUMBER?

A. Through applying the avoided cost methodology and rates recently approved by the Commission in Order Nos. 2019-881(A) and 2020-315(A) (issued on January 2, 2020 and April 17, 2020, respectively), as well as updated input assumptions, the Company has updated the 2020 value of NEM Distributed Energy Resources to $0.02868 per kWh for Schedules RES and R-TOUD, $0.02871 for Schedule SGS, and $0.02871 for all other schedules. Table 5, below, lists the components used to determine the value of NEM Distributed Energy Resources and their value. The calculation is consistent with the methodology approved in Order No. 2015-194. The methodology includes all categories of potential benefits or costs to the utility system that are capable of quantification or possible quantification in the future.

Table 5: Value of NEM Distributed Energy Resource, by Component

Components of NEM Distributed Energy Resource Value	Component Value ($/kWh) Residential PV[1]	Component Value ($/kWh) SGS PV[1]	Component Value ($/kWh) Large PV[1]
Marginal Energy Cost	$0.02911	$0.02915	$0.02914
Marginal Capacity Cost	$0.00000	$0.00000	$0.00000
Ancillary Services	($0.00110)	($0.00110)	($0.00110)
Transmission and Distribution ("T&D") Capacity	$0.00000	$0.00000	$0.00000
Avoided Criteria Pollutants[2]	$0.00005	$0.00005	$0.00004
Avoided CO2 Emission Cost (currently zero)	$0.00000	$0.00000	$0.00000
Fuel Hedge[3]	$0.00000	$0.00000	$0.00000
Utility Integration & Interconnection Costs	$0.00000	$0.00000	$0.00000
Utility Administration Costs	$0.00000	$0.00000	$0.00000
Environmental Costs	$0.00000	$0.00000	$0.00000
Subtotal	**$0.02806**	**$0.02809**	**$0.02809**
Line Losses[4]	$0.00062	$0.00062	$0.00062
Total Value NEM Distributed Energy Resource	**$0.02868**	**$0.02871**	**$0.02871**

Note:
1 "Residential PV" refers to a load shape reflecting generation installed by a residential customer. "SGS PV" refers to a load shape reflecting generation installed by a small commercial/industrial customer served under Small General Service Schedule SGS. "Large PV" refers to a load shape reflecting generation installed by a customer with higher consumption requirements and applies to all other nonresidential schedules. For the first time, the Company has separated the values for residential customers ("Residential PV") and small commercial/industrial customers ("SGS PV") as a result of available actual metered solar load profile data for the residential class. The Company continues to utilize third-party solar load profile data for non-residential customers.

2 Avoided Criteria Pollutants reflects NOx and SOx that have been separately identified from approved marginal energy costs.

3 Pursuant to the Settlement Agreement reached in DEC's 2016 annual fuel proceeding (Docket No. 2016-3-E), the Company has calculated the hedge value and determined that no fuel hedge exists; therefore, the value is zero.

4 Line loss factors are 2.332% for on-peak marginal energy, 4.433% for off-peak marginal energy and 1.874% for marginal capacity per DEC's updated 2018 line loss analysis based upon 2018 cost of service.

Q. PLEASE EXPLAIN WHY SOME OF THE COMPONENTS ARE VALUED AT ZERO.

A. The Company has identified the benefits or costs of several of the components of the Value of NEM DER as zero either because insufficient data and analysis exists to quantify the cost or benefit of that component or because the Company believes the actual numerical value of that component is zero.

Q. DOES DEC ROUTINELY REVIEW THE COST AND BENEFIT COMPONENTS OF THE VALUE OF NET ENERGY METERING OF DISTRIBUTED ENERGY RESOURCES CALCULATION?

A. Yes. As stated earlier, the Company has updated the Value of NEM DER calculation based on the recently-approved avoided cost methodology and avoided cost rates. Additionally, as the amount of installed customer-owned generation increases, it is important that the Company continually monitors its impact to ensure safe and reliable grid operations. Through this monitoring and analysis of the impact of NEM DER on the Company's system, new costs and benefits are identified. Those identified costs and benefits of NEM DER are then incorporated into the the Value of NEM DER calculation in the next year's fuel case.

Q. PLEASE DESCRIBE EXHIBIT 1 TO YOUR TESTIMONY.

A. Martin Exhibit 1 provides a redline of the Company's proposed 2020 net metering rider, Rider RNM, illustrating changes from the previous tariff. The only substantive change to the tariff proposed in this filing is the updated value of NEM Distributed Energy Resources.

Q. PLEASE DESCRIBE THE STATUS OF THE COMPANY'S SOLAR REBATE PROGRAM.

A. The Company's solar rebate program was implemented to assist the Company in meeting its Customer Scale solar requirement (facilities 1,000 kW and less) under Act 236. The Company has made available two solar rebate programs for its customers: the Small Solar Rebate Program and the Large Solar Rebate Program. Both provide a qualified customer with a rebate of $1.00 per watt-dc, and $1.50 per watt-dc for non-profit organizations, upon successful energization of a solar facility that conforms to the sizing requirements outlined in Act 236. As shown in Table 6, below, interest in the solar rebate, as measured by solar rebate applications received, has exceeded available capacity per Act 236 goals.

Table 6: DEC Solar Rebate Program Status, as of May 31, 2020

Solar Facility Size	ACT 236 Goal	Rebate Applications Received	Rebate Applications Accepted	Rebate Applications Paid
"Small" - Up to 20 kW-AC	At least 10,000 kW	17,500 kW	15,500 kW	94%
"Large" - 20.01 kW-AC - 1,000 kW-AC	30,000 kW	37,500 kW	24,500 kW	
Total	40,000 kW	55,000 kW	40,000 kW	

*All Values in kW-AC

As a result of receiving applications in excess of available capacity, all applications received after November 15, 2016 were placed on a waiting list, and the program was closed to new applications on January 27, 2017. The waiting list is utilized as additional capacity becomes available due to a project withdrawing or no longer meeting the criteria to receive a rebate.

Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE COMPANY'S SOLAR REBATE PROGRAM.

A. The incremental costs associated with the Solar Rebate Program and included in this filing are the amortization of rebates paid, carrying costs on deferred amounts, and general and administrative expenses required to manage the program, as shown in Table 2. In Order No. 2019-323, Docket No. 2018-319-E, the Commission approved utilitization of $40.1 million of the excess deferred income tax balance to offset $40.1 million of prospective amortization on unamortized DERP solar rebates. These values in Table 2 reflect rebate amortization amounts and carrying cost amounts, which have been adjusted as prescribed in Order No. 2019-323.

Q. PLEASE PROVIDE AN OVERVIEW AND STATUS OF THE COMPANY'S SHARED SOLAR PROGRAM.

A. The Company's Shared Solar Program, which launched in January 2019, is a means for retail customers to subscribe to and share in the economic benefits of renewable energy. Two solar facilities, totaling 3 MW, are dedicated to the Shared Solar Program. Customers are able to apply to the program using an online application which shows real-time capacity available in the program and assists them in determining their appropriate subscription size. Once enrolled, in addition to their regular energy bill, participants also pay a monthly shared solar subscription fee. That fee funds their share of the solar facilities. In exchange, they receive a monthly energy credit from the Company equal to the amount of solar energy produced by their share of the solar facility. In order to increase accessibility to the program, DEC also offers a low-moderate income (LMI) customer program, through which DEC waives the application fee and initial subscription charge (approximately $120 value) for 200 LMI qualified customers. Table 7 provides participation details for the program.

Table 7: DEC Shared Solar Program Status, as of May 31, 2020

Program Type	Total Available Capacity (kW-AC)	Number of Customers Subscribed	Total kW-AC Subscribed	% Subscribed
Standard Offering	2,600	279	2,600	100%
Low-Moderate Income (LMI)	400	123	246	62%

Q. WHAT COMMUNICATION AND OUTREACH HAS TAKEN PLACE TO INFORM, EDUCATE, AND SOLICIT CUSTOMERS TO PARTICIPATE IN THE SHARED SOLAR PROGRAM?

A. The standard program offering was fully subscribed within just two months of the program launching due to a high level of solar awareness and interest among customers. It was achieved mostly through discussions with large customers, media coverage, an email campaign to over 25,000 residential customers, as well as marketing efforts in partnership with an environmental organization based in Upstate South Carolina. Over the last year, the Company has utilized a variety of marketing and communications channels to inform and educate LMI customers about the Shared Solar Program. These include email, website banners, electronic newsletters, direct mail, event outreach, courtesy knocking, calling campaigns, and a Food Stamp mobile app advertisement.

From June 2019 – May 2020, the Shared Solar Program sent over 74,000 emails and 43,000 direct mail pieces to DEC LMI customers. Program outreach events prior to COVID were in partnership with the Neighborhood Energy Saver program, Duke Energy community outreach open houses, Duke Energy Foundation alumni engagement, and Low Income Home Energy Assistance organizations. This partnership allows for synergies across the Company to better serve LMI customers, bringing them information about the Shared Solar Program. Program modifications approved in March 2020 by the Commission expanded LMI access to the program and reduced participant risk, and as a result, the LMI Shared Solar Program became fully subscribed in July 2020.

Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE COMPANY'S SHARED SOLAR PROGRAM.

A. The cost associated with the Shared Solar Program, as set forth in Table 2 include the following incremental cost components: the amount of subsidy utilized to lower subscription fees for the program, general and administrative costs of the program, and costs of Shared Solar purchased power agreements in excess of avoided cost. Table 2 also includes the following avoided costs: avoided cost amounts paid for the purchase of power from participants in the program.

Q. PLEASE DESCRIBE THE RESULTS OF THE COMPANY'S REQUEST FOR PROPOSALS OF UTILITY-SCALE SOLAR FACILITIES AND THE ASSOCIATED DERP COSTS.

A. In 2015, the Company solicited competitive bids from solar PV facilities for a total of 40 MW, the equivalent of one percent of the Company's estimated South Carolina retail peak demand. This resulted in the execution of seven PPAs totaling 18 MW, which was below the 40 MW target. As a result, the Company released an additional RFP in August 2018, resulting in the execution of five additional PPAs totaling 12 MW. Two of the sites from the 2015 RFP, totaling 3 MW, began commercial operations in January 2019, and are designated for the Shared Solar Program. In addition to the 3 MW of solar capacity operating to support the Company's Shared Solar program, 6 MW of utility scale solar generation is commercially operating. The remaining approximately 31 MW are under contract and are being developed. Table 2 sets forth the incremental and avoided costs associated with these PPAs as well as incremental general and administrative expenses, including labor to conduct the RFP and negotiate the PPAs.

Q. PLEASE DESCRIBE THE COMPANY'S EFFORTS TO COMMUNICATE WITH STAKEHOLDERS ABOUT DER PROGRAMS AND PROGRAM CHANGES IN THE PAST YEAR.

A. Since the Commission approved the Company's DER Program application in 2015, the Company has utilized various communication and outreach tools to ensure that solar stakeholders and retail customers have access to information about the Company's programs and are able to communicate with representatives from the Company about the programs. For example, the Company has: 1) conducted quarterly DER Collaborative meetings with a diverse group of stakeholders representing the environmental community, low income community, solar installers, solar developers, and regulators; 2) provided a summary of net metering adoption on the Duke Energy website; 3) held a number of events and marketing campaigns for the Shared Solar Program (see additional detail above); and 4) provided call center support to retail customers and solar installers via its Renewable Service Center, which is staffed with approximately twenty professionals. The Company uses these outreach efforts as well as regular communication to keep stakeholders and retail customers informed of the status of the program offerings and other developments related to its DER programs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

RIDER RNM (SC)
RENEWABLE NET METERING

AVAILABILITY

Available to residential and nonresidential Customers receiving concurrent service from the Company, on a metered rate schedule, except as indicated under General Provisions. A customer-generator is an owner, operator, or lessee of an electric generation unit that generates or discharges electricity from a renewable energy resource, including an energy storage device configured to receive electrical charge solely from an onsite renewable energy resource. The renewable net energy metered (NEM) generation, which includes a solar photovoltaic; solar thermal; wind powered; hydroelectric; geothermal; tidal or wave energy; recycling resource; hydrogen fueled or combined heat and power derived from renewable resources; or biomass fueled generation source of energy, is installed on the Customer's side of the delivery point, for the Customer's own use, interconnected with and operated in parallel with the Company's system. The generation must be located at a single premise owned, operated, leased or otherwise controlled by the Customer. The system may either be owned by the Customer or by a lessor and leased to the Customer.

Service under this Rider is closed to new participants on and after June 1, 2021. Participants served under this Rider prior to May 16, 2019, and subsequent owners of the customer-generator facility, shall remain eligible for service under this Rider until December 31, 2025, when an alternate tariff must be selected. Participants and subsequent owners of the customer-generator facility applying for service under this Rider on and after May 16, 2019 and prior to June 1, 2021 shall remain eligible for service under this Rider until May 31, 2029, when an alternate tariff must be selected. Customers requesting NEM service on and after June 1, 2021 will receive service in accordance with the NEM tariff in effect at that time.

GENERAL PROVISIONS

1. To qualify for service under this Rider, the Customer must comply with all applicable interconnection standards and must provide, in writing, the Nameplate Capacity of the Customer's installed renewable generation system. Any subsequent change to the Nameplate Capacity must be provided by the Customer to the Company in writing by no later than 60 days following the change.
2. To qualify for service under this Rider, a residential Customer may be served on an approved residential rate schedule, but may not be served under Rider NM. The Nameplate Capacity of Customer's installed generation system and equipment must not exceed 20 kW AC.
3. To qualify for service under this Rider, a nonresidential Customer may be served on an approved general service or industrial rate schedule, but may not be served on Schedules TS, BC, HP, PG, MP or Rider NM. The Nameplate Capacity of Customer's installed renewable generation system and equipment must not exceed the lesser of 1,000 kW AC or 100% of the Customer's contract demand which shall approximate the Customer's maximum expected demand.
4. If the Customer is not the owner of the premises receiving electric service from the Company, the Company shall have the right to require that the owner of the premises give satisfactory written approval of the Customer's request for service under this Rider.
5. All environmental attributes, including but not limited to "renewable energy certificates" (RECs), "renewable energy credits" or "green tags", associated with the generation system shall be conveyed to the Company until billing of a Distributed Energy Resource Program Rider DERP Charge is discontinued on all customer bills. The Customer certifies that the environmental attributes have not, and will not, be remarketed or otherwise resold for any purpose, including another distributed energy resource standard or voluntary purchase of renewable energy certificates in South Carolina or in any other state or country for the Contract Period and any successive contract periods thereto.
6. If the electricity supplied to the Customer by the Company exceeds the electricity delivered to the grid by the customer-generator during a monthly billing period, the customer-generator shall be billed for the net electricity in kilowatt hours (kWh) supplied by the Company plus any demand or other charges under the applicable rate schedule or riders. If the electricity delivered to the grid by the customer-generator exceeds the electricity in kWh supplied by the utility during a monthly billing period, the Customer-Generator shall be credited for the excess kWh generated during that billing period.

RIDER RNM (SC)
RENEWABLE NET METERING

7. Electricity delivered to the grid by the Customer's renewable generation that exceeds the electricity delivered by the Company is defined as Excess Energy. When used in conjunction with a time of use schedule, the TOU periods shall be specified in the applicable schedule and any Excess Energy shall apply first with the Excess Energy generated On-Peak kWh offsetting On-peak usage and then offsetting Off-peak usage. Any excess Off-Peak kWh shall only apply against Off-peak kWh usage. Any Excess Energy not used in the current month to offset usage shall carry forward to the next billing month.
8. Excess Energy shall be used to reduce electricity delivered and billed by the Company during the current or a future month, except that for the March billing period any carry-over shall be compensated as described in the RATE paragraph below.
9. In the event the Company determines that it is necessary to increase the capacity of facilities beyond those required to serve the Customer's electrical requirement or to install a dedicated transformer or other equipment to protect the safety and adequacy of electric service provided to other customers, the Customer shall pay the estimated cost of the required transformer or other equipment above the estimated cost which Company would otherwise have normally incurred to serve the Customer's electrical requirement, in advance of receiving service under this Rider.
10. The rates set forth herein are subject to Commission Order No. 2015-194, issued in Docket No. 2014-246-E pursuant to the terms of S.C. Code § 58-40-20(F)(4). Eligibility for this rate will terminate as set forth in that Order, and otherwise as specified above. The value of NEM generation eligible for this Rider shall be computed using the methodology contained in Commission Order No. 2015-194, in Docket No. 2014-246-E, and shall be updated annually by the Company. The value of NEM generation for ~~2019~~ 2020 is $~~0.05312~~0.02868 per kWh for Schedules RS, RE, ES, RB and RT; $~~0.05311~~0.02871 for Schedule SGS; and $~~0.05299~~0.02871 for all other schedules.

RATE

All provisions of the applicable schedule and other applicable riders will apply to service supplied under this Rider, except as modified herein. For any bill month during which the Energy Charges are a net credit, the respective Energy Charges for the month shall be zero. Credits shall not offset the Basic Facilities Charge or the Demand Charge (if applicable). In addition to all charges in the applicable rate schedule for the Customer's net electrical usage, the following credit may be applicable annually:

Annual Credit for Excess Generation

If the Customer has Excess Energy after offsetting usage as of the date of the March billing, the Company shall pay the Customer for the amount of the accumulated Excess Energy times a rate of $~~0.0432~~ 0.0270 per kWh, after which the amount of Excess Energy shall be set to zero.

MINIMUM BILL

The monthly minimum bill for customers receiving service under this Rider shall be no less than Basic Facilities Charge from the applicable rate schedule and riders plus, if applicable, any of the following Charges: the Demand Charge, the Economy Demand Charge, Excess Demand Charge and the Extra Facilities Charge.

METERING REQUIREMENTS

The Company will furnish, install, own and maintain a billing meter to measure the kWh delivered by the Company to the Customer, and to measure the net kWh purchased by the Customer or delivered to the Company. For renewable generation capacity of 20 kW AC or less, the billing meter will be a single, bi-directional meter which records independently the net flow of electricity in each direction through the meter, unless the Customer's overall electrical requirement merits a different meter. For larger renewable generation capacities, the Company may elect to require two meters with 30-minute interval capabilities to separately record the Customer's electrical consumption and the total generator output, which will be electronically netted for billing. The Customer grants the Company the right to install, operate, and monitor special equipment to measure the Customer's generating system output, or any part thereof, and to obtain any other data necessary to determine the operating characteristics and effects of the installation. All metering shall be at a location that is readily accessible by the Company.

RIDER RNM (SC)
RENEWABLE NET METERING

SAFETY, INTERCONNECTION AND INSPECTION REQUIREMENTS
This Rider is only applicable for installed renewable generation systems and equipment that complies with and meets all safety, performance, interconnection, and reliability standards established by the Commission, the National Electric Code, the National Electrical Safety Code, the Institute of Electrical and electronic Engineers, Underwriter's Laboratories, the Federal Energy Regulatory Commission and any local governing authorities. The Customer must comply with all liability insurance requirements of the Interconnection Standard.

POWER FACTOR
The Customer's renewable generation must be operated to maintain a 100% power factor, unless otherwise specified by Company. When the average monthly power factor of the power supplied by the Customer to the Company is other than 100%, the Company may correct the energy in kWh, as appropriate. The Company reserves the right to install facilities necessary for the measurement of power factor. The Company will not install such equipment, nor make a power factor correction if the renewable generation system is less than 20 kW and uses an inverter.

CONTRACT PERIOD
The Customer shall enter into a contract for service under this Rider for a minimum original term of one (1) year, and the contract shall automatically renew thereafter, except that either party may terminate the contract after one year by giving at least sixty (60) days prior notice of such termination in writing.

The Company reserves the right to terminate the Customer's contract under this Rider at any time upon written notice to the Customer in the event that the Customer violates any of the terms or conditions of this Rider, or operates the renewable generation system and equipment in a manner which is detrimental to the Company or any of its customers. In the event of early termination of a contract under this Rider, the Customer will be required to pay the Company for the costs due to such early termination, in accordance with the Company's South Carolina Service Regulations.